

REMARKS

The Applicants thank the Examiner for the thorough consideration given the present application. Claims 1 and 3-8 are pending. Claim 2 was previously cancelled. Claims 1, 4, and 7 are amended. Claim 1 is independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Reasons for Entry of Amendments

At the outset, it is respectfully requested that this Amendment be entered into the Official File in view of the fact that the amendments to the claims automatically place the application in condition for allowance.

In the alternative, if the Examiner does not agree that this application is in condition for allowance, it is respectfully requested that this Amendment be entered for the purpose of Appeal. This Amendment was not presented at an earlier date in view of the fact that Applicants did not fully appreciate the Examiner's position until the Final Office Action was reviewed.

Rejection Under 35 U.S.C. § 112, second paragraph

Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite due to a typographical error. This rejection is respectfully traversed.

In order to overcome this rejection, the Applicants have amended claim 7 to correct the typographical error pointed out by the Examiner. The Applicants respectfully submit that the claims, as amended, particularly point out and distinctly claim the subject matter which

the Applicants regard as the invention. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Rejections Under 35 U.S.C. §103(a)

Claim 1, 3, 4, 7, and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Khosravi (U.S. Patent 6,361,546) in view of Brooks et al. (U.S. Patent 6,346,116); and

Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Khosravi in view of Brooks et al., and further in view of Rosenbluth (WO 99/56801).

These rejections are respectfully traversed.

Arguments Regarding Independent Claim 1

Claims 1, 3, 4, 7 and 8 have been rejected as being unpatentable over Khosravi (U.S. Patent 6,361,546) in view of Brooks et al. (U.S. Patent 6,346,116). In the official action, it is stated that “Khosravi fails to disclose the filter frame wires 24 as being spiral and crossed with one another, but Brooks et al. teach that the filter frame wires 56 for supporting an endovascular filter membrane should be spiral and crossed with one another apparently in order to obtain the advantage of better supporting the filter membrane around its circumference. It should have been obvious to make the Khosravi filter frame wires 24 spiral and crossed with one another so that it too would have this advantage.”

However, it is believed that the Examiner has made an error in determination of the subject matter of Brooks et al. In fact, Brooks et al. disclose that struts 56 of filter assembly basket 58 shown in Fig. 4 have a dense braid on distal portion 60 that transitions to a less

dense braid on proximal portion 62 (col. 4, lines 37-40). However, Brooks et al. clearly teach that such a frame configuration has been used not to obtain the advantage of better supporting the filter membrane around its circumference, but rather to obviate the need for a filter material (col. 2, lines 64-67 and col. 4, lines 44-48). Further, since the braid of struts is created by interweaving or twisting three or more struts, the braided struts are interconnected one another and prevented from relative or free displacement when deploying or collapsing the filter assembly.

This differs greatly from the thrombus capture member of the present invention in which the distal end of the spirally-configured plural wires are allowed to move longitudinally along the shaft when changing the thrombus capture member from the contracted state to the swelled configuration or *vice versa* (see paragraph 0040 and Figs. 3 and 4). Such a difference results from the facts that the spirally-configured plural wires in the present invention are not braided but merely crossed with one another.

In the present invention, the distal end of the thrombus capture member is slidably mounted on the shaft, while the proximal end is fixed to the shaft thereof. Thus, the distal end of the thrombus capture member of the present invention is allowed to move longitudinally along the wire to assist contraction and swelling of the thrombus capture member which follows by increase in length of the thrombus capture member. In addition, the crossed wire member structure of the present invention is used to allow the thrombus capture member to be contracted and swollen at the time of operation as well as to ensure close contact with the vascular wall.

In contrast therewith, the proximal and distal ends of the filter assembly of Brooks et al. are fixed to the delivery member such that the ends cannot move longitudinally along the delivery member, but may rotate independent of the delivery member core. Thus, a part of the distal portion 60 of the assembly within sheath 18 as shown in FIG.2. This clearly reveals that the braided structure of the filter assembly of Brooks et al. differs from the crossed wire member structure of the present invention. Thus, the Examiner's conclusion is believed to be incorrect.

Khosravi merely discloses a vascular filter 10 comprising an elongate tubular member 12, an expandable frame 14 (composed of a plurality of struts or splines 24 and disposed on the tubular member 12), and filter material 16 made of a woven fabric or wire frame and attached to the expandable frame 14 and/or the tubular member 12. However, the vascular filter 10 greatly differs in construction from that of the present invention, since the thrombus capture catheter of the present invention includes no elongated tubular member and has a crossed wire member comprised of plural wires spirally configured and crossed with one another to have a configuration swollen in middle portion and tapered to proximal and distal ends thereof.

Although Khosravi teaches that the lumen 64 may have an enlarged distal region for receiving the vascular filter 10 therein proximate an outlet 66 of the lumen 64, and a narrow proximal region for receiving the bumper member 54 and/or a guidewire 68 therethrough (col. 5, lines 19-25), the sheath 52 is never closed at the proximal end since the bumper member 54 is formed from a flexible or semi-rigid tubular body with a lumen 70 for

receiving a guidewire 68 therethrough (col. 5, lines 26-29). This differs from the present invention.

Further, the Examiner stated that shaft 12 in Khosravi is flexible in the embodiment described in col. 4, lines 13-16 due to the articulations. However, Khosravi clearly teaches the tubular member 12 is a section of substantially rigid cylindrical tubing (col. 3, line 66 to col. 4, line 10), and that articulations are used to provide multiple lengths of tubing or to provide transverse flexibility for the vascular filter 10 (col. 4, lines 13-16).

Thus, the shaft 12 may have transverse flexibility or may be "CHANGEABLE" in length by articulation, but it does not mean the meaning of "flexible" defined as being "able to bend or be bent easily without breaking" (see Cambridge Dictionary of American English). Thus, it is believed that the Examiner has put a false color on description of the Khosravi.

At least for the reasons explained above, the Applicants respectfully submit that the combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including Khosravi.

Therefore, independent claim 1 is in condition for allowance.

Dependent Claims

The Examiner will note that dependent claims 4 and 7 are amended.

All dependent claims are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

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Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are respectfully requested.

CONCLUSION

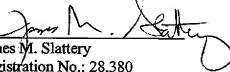
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 208-4030(direct line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

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